FINAL ENVIRONMENTAL ASSESSMENT

CONSTRUCTION OF ANTENNA PARTS STORAGE FACILITY AND DEMOLITION OF HAZARDOUS MATERIALS STORAGE SHED AND OIL CHANGE PIT

JORDAN LAKE AIR FORCE SPACE SURVEILLANCE STATION, ALABAMA

November 2012

Air Force Space Command
20th Space Control Squadron

Report Documentation Page

Form Approved
OMB No. 0704-0188

1. REPORT DATE	2. REPORT TYPE	3. DATES COVERED
03 JAN 2013	**Environmental Assessment**	**00-00-2011 to 00-00-2013**

4. TITLE AND SUBTITLE	5a. CONTRACT NUMBER
Final Environmental Assessment Construction of Antenna Parts Storage Facility and Demolition of Hazardous Materials Storage Shed and Oil Change Pit, Jordan Lake Air Force Space Surveillance Station, Alabama	5b. GRANT NUMBER
	5c. PROGRAM ELEMENT NUMBER
6. AUTHOR(S)	5d. PROJECT NUMBER
	5e. TASK NUMBER
	5f. WORK UNIT NUMBER
7. PERFORMING ORGANIZATION NAME(S) AND ADDRESS(ES) **United States Air Force - Air Force Space Command,Jordan Lake Air Force Space Surveillance Station,Wetumpka,AL,36092**	8. PERFORMING ORGANIZATION REPORT NUMBER
9. SPONSORING/MONITORING AGENCY NAME(S) AND ADDRESS(ES)	10. SPONSOR/MONITOR'S ACRONYM(S)
	11. SPONSOR/MONITOR'S REPORT NUMBER(S)

12. DISTRIBUTION/AVAILABILITY STATEMENT
Approved for public release; distribution unlimited

13. SUPPLEMENTARY NOTES

14. ABSTRACT
Final Environmental Assessment Construction of Antenna Parts Storage Facility and Demolition of Hazardous Materials Storage Shed and Oil Change Pit, Jordan Lake Air Force Space Surveillance Station, Alabama

15. SUBJECT TERMS

16. SECURITY CLASSIFICATION OF:			17. LIMITATION OF ABSTRACT	18. NUMBER OF PAGES	19a. NAME OF RESPONSIBLE PERSON
a. REPORT	b. ABSTRACT	c. THIS PAGE			
unclassified	**unclassified**	**unclassified**	**Same as Report (SAR)**	**55**	

FINDING OF NO SIGNIFICANT IMPACT

Construction of Antenna Parts Storage Facility and Demolition of Hazardous Materials Storage Shed and Oil Change Pit
Jordan Lake Air Force Space Surveillance Station, Alabama

Pursuant to provisions of the National Environmental Policy Act (NEPA), 42 U.S. Code 4321 *et seq*, implementing Council on Environmental Quality (CEQ) Regulations, 40 Code of Federal Regulations (CFR) 1500-1508, and 32 CFR Part 989, *Environmental Impact Analysis Process* (EIAP), the U.S. Air Force (Air Force) conducted an assessment of the potential environmental consequences of constructing an antenna parts storage facility and demolishing the hazardous materials storage shed and oil change pit. This Environmental Assessment (EA), Construction of Antenna Parts Storage Facility and Demolition of Hazardous Materials Storage Shed and Oil Change Pit Jordan Lake Air Force Space Surveillance Station (AFSSS), AL, incorporated by reference in this finding, considers the potential impacts of the Proposed Action on the natural and human environments.

Proposed Actions and Alternatives

The Proposed Action is to construct a 325 square foot antenna parts storage facility and demolish the hazardous materials storage shed and oil change pit. The No Action Alternative is not to construct a new storage facility and not to demolish the hazardous materials storage shed and oil change pit.

Summary of Findings

Geology, Topography and Soils: Implementing the Actions will not impact the geology or topography of the Installation but will have minor impacts on soils. The impacts to soils will be unavoidable but temporary and not significant. No long-term impacts will occur.

Air Quality: There will be temporary increased emissions from the use of equipment and worker vehicles during the construction and demolition activities. Each type of equipment will be used briefly and will generate a very small amount of emissions. Conformity thresholds and air standards will not be exceeded.

Water Resources: Short-term disturbances from construction activities could cause wind and water erosion. Storm water runoff will be localized and will not impact storm water drainage in the area. Proper construction management such as the use of runoff and sediment traps (i.e., bales and silt fences) should minimize the potential for adverse impacts to surface waters from runoff. Replacement of ground cover as soon as possible will reduce erosion. No significant impacts to water resources would occur from the construction /demolition activities.

Biological Resources: Less than one acre of land would be graded and cleared for construction / demolition activities. The project areas are not considered critical habitat. After construction the area would be revegetated and no long-term impacts would occur.

Cultural Resources: No known cultural resources have been identified in the construction /demolition area. The project areas have been previously disturbed. Properties potentially eligible for the National Register of Historic Places will not be disturbed as part of this Action.

Lead-Based Paint: Lead-based paint will be removed / abated as part of the demolition of the hazardous materials storage shed. The quantity of any waste and the short duration of the removal process would not result in a significant impact.

As there are no adverse environmental impacts that will result from implementation of the Proposed Actions, no mitigation measures are necessary. The proposed management practices identified in the EA are standard construction management practices that will be implemented by the contractor.

Finding of No Significant Impact

Based upon my review of the facts and analyses contained in the attached EA, conducted in accordance with the provisions of NEPA, the CEQ Regulations, and 32 CFR Part 989, I conclude that the Proposed Actions will not have a significant environmental impact, either by itself or cumulatively with other ongoing projects at Jordan Lake AFSSS, will not involve an element of high risk or uncertainty on the human environment, and its effects on the quality of the human environment are not highly controversial. Accordingly, an Environmental Impact Statement is not required. The signing of this Finding of No Significant Impact (FONSI) completes the environmental impact analysis process.

3 JAN 2013

MITCHELL A. KATOSIC, Lt Col, USAF
Commander, 20th Space Control Squadron

Date

FINAL

ENVIRONMENTAL ASSESSMENT

CONSTRUCTION OF ANTENNA PARTS STORAGE FACILITY AND DEMOLITION OF HAZARDOUS MATERIALS STORAGE SHED AND OIL CHANGE PIT
JORDAN LAKE AIR FORCE SPACE SURVEILLANCE STATION, ALABAMA

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Page

List of Tables

Page

List of Figures

Page

List of Photo

Page

Acronyms and Abbreviations

ADEM	Alabama Department of Environmental Management
AFI	Air Force Instruction
AFSPC	Air Force Space Command
AFSSS	Air Force Space Surveillance Station
BLDG	Building
CAA	Clean Air Act
CEQ	Council on Environmental Quality
CFR	Code of Federal Regulations
DoD	Department of Defense
EA	Environmental Assessment
EIS	Environmental Impact Statement
EO	Executive Order
°F	Degrees Fahrenheit
FONSI	Finding of No Significant Impact
kW	Kilowatt
LBP	Lead-Based Paint
LCC	Lead-Containing Components
MBTA	Migratory Bird Treaty Act
NAAQS	National Ambient Air Quality Standards
NEPA	National Environmental Policy Act
NRCS	Natural Resources Conservation Service
NRHP	National Register of Historic Places

OSHA	Occupational Safety and Health Administration
PCB	Polychlorinated Biphenyls
RCRA	Resource Conservation Recovery Act
SHPO	State Historic Preservation Office
SIP	State Implementation Plan
TCLP	Toxicity Characteristic Leaching Procedure
U.S.	United States
USAF	U.S. Air Force
USC	United States Code
USDA	United States Department of Agriculture
USEPA	United States Environmental Protection Agency
USFWS	United States Fish and Wildlife Service
USGS	United States Geological Survey

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1.0 PURPOSE AND NEED FOR ACTION

This environmental assessment (EA) evaluates the potential for environmental consequences from one construction and two demolition projects planned for Jordan Lake Air Force Space Surveillance Station (AFSSS), AL. The Air Force proposes to complete one construction /and two demolition projects, all of which are evaluated in this EA in the interests of efficiency, economy, and cumulative impacts. These projects focus on sustaining the current mission while ensuring the longevity of the Installation through the construction and demolition projects.

1.1 LOCATION AND MISSION

Jordan Lake AFSSS is located in Elmore County, Alabama, approximately 10 miles north of Wetumpka (see Figure 1). The Installation is comprised of approximately 11.3 acres of land. Facilities and infrastructure at the Installation include an operations building, maintenance building, hazardous materials storage shed, oil change pit, underground tornado shelter and 1,032 foot transmitter antenna array. Figure 2 shows an aerial view of the Installation.

The Air Force Space Surveillance System, known as the "space fence", is a radar system that detects and tracks objects in orbit over the United States (U.S.). The space fence is comprised of nine field stations (three transmitter sites and six receiving sites) across the southern U.S. from Georgia to California, and is under the command of the 20th Space Control Squadron, Detachment 1 of the U.S. Air Force Space Command (AFSPC). The mission of Jordan Lake AFSSS is to maintain constant surveillance of space by detecting and tracking objects in orbit over the U.S. to assist with national security requirements. Jordan Lake AFSSS is one of three transmitter sites that are part of the space fence. The transmitters emit a continuous beam (i.e., fence) of radar energy while the receivers "listen" for radar returns from objects in orbit passing through the fence. Orbiting satellites and other objects that cross the fence reflect radio waves back to earth, where the waves are collected at the six receiver sites.

1.2 PURPOSE AND NEED

Each of the projects has its own specific purpose; these are discussed in the following paragraphs. These projects are intended to allow the Installation to carry out their assigned responsibilities in ways that fully satisfy mission requirements, foster safe operational practices, and protect human health and the environ ment. These construction / demolition projects are necessary to support the Installation's mission. The projects are described below.

1.2.1 Construct Antenna Parts Storage Building

Jordan Lake does not have a storage shed for their antenna parts. Antenna parts are currently stored in the maintenance shed. The purpose and need for constructing a new storage facility is to have one storage facility large enough for all the Installation's storage needs. Also, a focused effort to consolidate storage space is necessary due to a history of storage dispersement throughout several buildings, making managing antenna parts, supplies and equipment cumbersome.

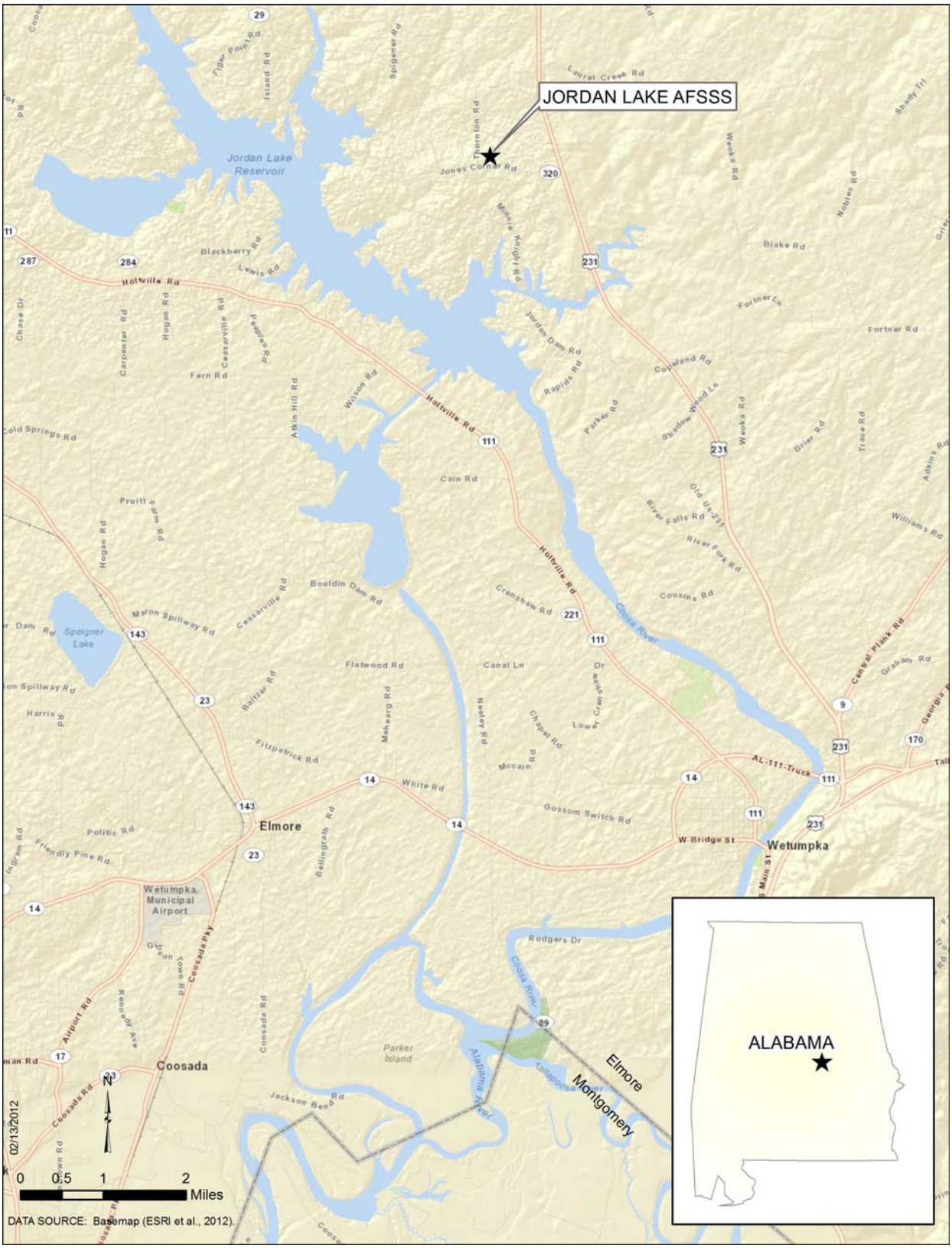

Figure 1. Location of Jordan Lake AFSSS

Figure 2. Jordan Lake AFSSS – Aerial View of Installation

1.2.2 Demolish Hazardous Materials Storage Shed and Oil Change Pit

The purpose of the action is to dispose of facilities that are excess to the needs of the current mission at Jordan Lake AFSSS, have outlived their usefulness, or present safety concerns. The hazardous materials storage shed is deteriorated, and demolition is recommended, warranting a Condition Code 3 (Forced Use, Substandard). Condition codes are defined in the Air Force Project Managers Guide for Design and Construction (June 2000) and are the evaluation of the ability of a facility to support the present occupant. Condition Code 3 means this building cannot be raised to meet Class A standards to house the function for which it is currently designated. However, from necessity it must be continued in use for a short duration or until a suitable facility can be obtained. Class A standards mean the facility is adequate and can house the function for which it is currently designed with reasonable maintenance and without major alteration or reconstruction. The hazardous materials storage shed has numerous spots where the metal has rusted through allowing for insect intrusion. This shed is old and outdated and has reached the end of its useful life. This shed cannot be raised to meet Class A standards to house the function for which it was designated.

The oil change pit is no longer used by Installation personnel. Vehicles are taken to town for oil changes.

1.3 SCOPE OF THE ENVIRONMENTAL REVIEW

The scope of this environmental review is to analyze potential environmental impacts and concerns from construction of a new storage facility and demolition of the hazardous materials storage building and oil change pit. An advertisement announcing the availability of the Draft Final EA and Finding of No Significant Impact (FONSI) for public review was published in the Wetumpka Herald on August 29, 2012. A copy of the Draft Final EA was placed in the Wetumpka Library, 212 South Main Street, Wetumpka, AL. The Draft Final EA was also made available on the internet at ftp://ftp.pbainc.com/public. No public comments were received. Appendix A contains a copy of the notice of availability.

After reviewing the environmental impact analysis and public and/or agency comments, the Air Force has decided that the environmental effects are not significant. The Air Force will issue a FONSI; an environmental impact statement (EIS) is not necessary based on the limited impacts identified in the EA.

1.4 REGULATORY REQUIREMENTS AND GUIDANCE

The AFSPC prepared this EA in accordance with the National Environmental Policy Act (NEPA) of 1969 (42 USC 4321-4347), Council on Environmental Quality (CEQ) Regulations for Implementing the Procedural Provisions of NEPA (40 Code of Federal Regulations [CFR] 1500-1508), and Department of the Air Force Environmental Impact Analysis Process (32 CFR 989). This EA analyzes the environmental consequences of implementing the Proposed Actions for Jordan Lake AFSSS and provides information to the public and to the AFSPC decision-makers regarding the potential significance of the federal action.

Other federal laws and executive orders (EO) related to environmental issues addressed in this EA are briefly described in Table 1.

TABLE 1. FEDERAL LAWS AND EXECUTIVE ORDERS

Title	Citation	Description
Endangered Species Act	16 USC 1531	Requires federal agencies to evaluate the effects of their actions on endangered or threatened species of fish, wildlife, and plants and take steps to conserve and protect these species and their critical habitat.
Migratory Bird Treaty Act	16 USC 703	Provides for the protection of migratory birds and prohibits their unlawful take or possession.
Clean Water Act	33 USC 1251	Establishes limits on the amounts of specific pollutants discharged to surface waters to restore and maintain the chemical, physical, and biological integrity of the water as established by ambient water quality standards.
Floodplain Management	EO 11988	Requires federal agencies to evaluate the potential effects of actions on floodplains and to consider alternatives to avoid adverse effects and incompatible development wherever possible.
Clean Air Act	42 USC 7401	Establishes policy to protect and enhance the quality of the nation's air resources to protect human health and the environment. Federal actions must conform to a State Implementation Plan and cannot cause or contribute to new violations of National Ambient Air Quality Standards.
Federal Noxious Weed Act	7 USC 2801	Requires federal agencies to develop management programs to control undesirable plants on federal lands that have the potential to impact agriculture, wildlife resources, or public health.
Invasive Species	EO 13112	Directs federal agencies to make efforts to prevent the introduction and spread of invasive plant species.
National Historic Preservation Act	16 USC 470	Requires federal agencies to determine the effect of their actions on cultural resources and take certain steps to ensure these resources are located, identified, evaluated, and preserved.
Polychlorinated Biphenyls (PCBs) Manufacturing, Processing, Distribution in Commerce, and Use Prohibitions	40 CFR 761	Establishes policy to regulate the use, storage, and disposal of PCBs, and prohibits production of these compounds after January 1979.
National Emissions Standards for Hazardous Air Pollutants	40 CFR 61	Requires building owners to thoroughly inspect a facility for asbestos prior to demolition and renovation activities.
Resource Conservation Recovery Act (RCRA)	42 USC 6961	Comprehensive program for regulating and managing hazardous wastes. Includes requirements for lead-based paint abatement and removal.
Strengthening Federal Environmental, Energy, and Transportation Management	EO 13423	Sets goals in the areas of energy efficiency, acquisition, renewable energy, toxics reductions, recycling, renewable energy, sustainable buildings, electronics stewardship, fleets, and water conservation.

Title	Citation	Description
Federal Leadership in Environmental, Energy, and Economic Performance	EO 13514	Expands on EO 13423 and sets sustainability goals for Federal agencies and focuses on making improvements in their environmental, energy and economic performance.

1.5 APPLICABLE REGULATIONS AND PERMITS

- Installation contractors would follow safety guidelines of the Occupational Safety and Health Administration as presented in the Code of Federal Regulations. Should any Installation employees participate in the Proposed Actions, they would comply with relevant Air Force occupational safety and health standards.

- Under Section 402 of the Clean Water Act, discharge of pollutants into waters of the U.S. requires a National Pollutant Discharge Elimination System (NPDES) permit from the USEPA. In order to discharge storm water from a construction site, all construction projects that disturb one acre or more of land must seek coverage under a NPDES general construction permit for small construction activities that disturb at least one acre, but less than five acres of land. The construction contractor would be required to apply the current construction industry Best Management Practices in accordance with federal requirements and NPDES General Permit requirements. Disturbance includes, but is not limited to soil disturbance, clearing, grading, and excavation. Large construction activities are defined as being five or more acres.

1.6 ORGANIZATION

This EA follows the recommended outline in CEQ and Air Force NEPA-implementing regulations.

Section 1.0—Purpose and Need for the Actions provides background information about the Installation; the purpose and need for the Proposed Actions; the scope of the environmental review; applicable regulatory requirements; permits and a brief description of how the document is organized.

Section 2.0—Provides details of the Proposed Actions and the No Action Alternative.

Section 3.0—Affected Environment provides a description of the existing conditions of the areas potentially affected by the Proposed Actions.

Section 4.0—Environmental Consequences provides an analysis of potential direct, indirect, and cumulative impacts to environmental resources that may result from implementing the Proposed Actions or Alternatives.

Section 5.0— References provides a listing of the references used in preparing this EA.

Section 6.0—List of Preparers lists the names, affiliations, and qualifications of the document preparers.

Appendices—Provides a List of Agencies, Organizations, and Individuals Contacted for information in the preparation of this document; agency correspondence; and a copy of the Notice of Availability..

2.0 PROPOSED ACTIONS AND ALTERNATIVES

This Section describes the Proposed Actions for each project and the No Action Alternative. CEQ regulations require the inclusion of the No Action Alternative. The No Action Alternative serves as a baseline against which the impacts of the Proposed Actions and Alternatives are compared. There are three proposed construction/demolition projects that are described individually in terms of proposed functions, location, and construction/demolition.

2.1 SELECTION CRITERIA FOR ALTERNATIVES

In accordance with 32 CFR Part 989.8(c) the development of site-selection criteria is an effective mechanism for the identification, comparison, and evaluation of reasonable alternatives. The following site selection criteria were developed to be consistent with the purpose and need for the action.

- Support the Installation's mission to detect orbital objects passing over America;
- Be protective of facilities, human health and the environment;
- Not violate provisions of the National Historic Preservation Act;
- Meet current Air Force design standards and energy goals;
- Have sufficient space to house all necessary parts and equipment;
- Impacts to natural resources such as floodplains, wetlands, water bodies and threatened and endangered species and habitats must be minimized to the maximum extent practicable. Unavoidable impacts must be addressed according to federal, Air Force, state and local regulations.

2.2 PROPOSED ACTIONS BY PROJECT

The Air Force is proposing three separate construction/demolition projects in support of the mission at Jordan Lake AFSSS. The proposed projects would occur at various locations around the Installation. Table 2 presents a list of the three projects.

TABLE 2. CONSTRUCTION / DEMOLITION PROJECTS

Number	Project Number (if applicable) and Name
1	LWAD-05-1001, Construct Antenna Parts Storage Facility
2	LWAD-05-1001, Demolish Hazardous Materials Storage Shed
3	Demolish Oil Change Pit
USAF, 2009	

2.3 PROPOSED ACTIONS

2.3.1 Construct Antenna Parts Storage Facility

2.3.1.1 Proposed Action

The Proposed Action is to construct a new antenna parts storage facility. The facility would be a minimum of 325 square feet with a minimum facility length of 25 feet. A facility length of 25 feet is needed to accommodate the largest radar part (USAF, 2009). The proposed location of the facility is where the existing hazardous materials storage shed is currently located (see Figure 3). An alternate location is proposed for construction on top of an existing concrete pad.

Construction of the facility would include site preparation, a concrete foundation, roof system, electrical system, and ventilation. This building would be large enough for the Installation to store all their equipment and antenna parts in one location. Approximately 581 square feet would be disturbed during construction (this includes demolition of the existing shed since it is located in the same general location and assumes a three-foot wide buffer around the site).

2.3.1.2 No Action Alternative

The No Action Alternative would be not to construct the antenna parts storage facility.

2.3.2 Demolish Hazardous Materials Storage Shed and Oil Change Pit

2.3.2.1 Proposed Action

The hazardous materials shed (see Photos 1-2) is a corrugated metal structure with wood frame constructed on a concrete slab. The structure is not space conditioned and does not have utilities. This shed has numerous spots where the metal has rusted through allowing for insect intrusion. This shed is old and outdated and is being evaluated for demolition. Approximately 581 square feet would be disturbed during demolition of this shed (this includes construction of the proposed new storage facility since it would be built in the same vicinity).

The oil change pit (see Photos 3-4) is a three sided concrete masonry unit enclosure with several steel channels on top intended for undercarriage vehicle maintenance. The structure is adjacent to a storm water runoff ditch and does not have an oil water separator. This pit is no longer used and is being evaluated for demolition. Since the pit is built into the hill, removal of the concrete would require backfill to maintain the structural integrity of the hill. Approximately 270 square feet would be disturbed during demolition (assumes a three-foot wide buffer around the site).

All demolition materials would be properly disposed of, off-site. All materials would be recycled to the fullest extent possible and all trucks used to haul materials would be covered to prevent materials from littering roadways and surrounding areas. Debris not reused, recycled, or considered as inert waste would be disposed of in the local landfill. Any utilities to these structures would be disconnected prior to demolition. After demolition, the land would be graded and restored to natural vegetation.

Figure 3. Proposed Actions for Jordan Lake AFSSS

Photo 1: Hazardous Materials Storage Shed to be Demolished

Photo 2: Hazardous Materials Storage Shed to be Demolished

Photo 3: Oil Change Pit to be Demolished

Photo 4: Oil Change Pit to be Demolished

2.3.2.2 No Action Alternative

The No Action Alternative would be not to demolish the hazardous materials storage shed and the oil pit.

3.0 AFFECTED ENVIRONMENT

This Section describes the environment at Jordan Lake AFSSS and the area surrounding the Installation that may be affected by implementing the Proposed Actions. The existing environmental conditions serve as a baseline from which to identify and evaluate potential environmental changes attributable to the Proposed Actions and alternatives. The intent of NEPA is to focus the analysis on the human (i.e., physical, biological, and social) environment potentially affected by the federal action. Resources and areas of the human environment that are not present on or in the vicinity of Jordan Lake AFSSS, or that would not be affected by the Proposed Actions or alternatives are not described in this chapter. Table 3 lists these resources and provides the rationale for excluding them from further description and from impact analysis in Chapter 4.

TABLE 3. RESOURCES NOT DESCRIBED OR EVALUATED

Resource	Rationale for Excluding from Evaluation
Noise	There are no noise sensitive receptors on or in the vicinity of the Installation. Noise sources within the Installation are limited to vehicles, including the tractor used to mow. The nearest residence is approximately .05 miles to the south of the Installation.
Outdoor Recreation	The Installation does not support public outdoor recreation opportunities because of the military mission, small land area, and lack of natural resources and facilities.
Visual Resources	The Installation is isolated and the antenna array, single-story buildings, and infrastructure have limited visual appeal. There are no views to the site from public areas, except from Hwy 231. Implementing the Proposed Actions would not adversely affect the scenic view of observers from public access locations.
Floodplains	The flood data was reviewed and the closest 100-year flood is located .25 miles northeast of the installation and is associated with a tributary of Jordan Lake, Pinkston Creek. No impacts to floodplains would occur as a result of the Proposed Actions.
Solid Wastes	Implementing the Proposed Actions would not increase or decrease the long-term use, storage, generation, or disposal of solid wastes. There would be a temporary increase in solid waste and recyclables during construction and demolition.
Hazardous Material and Hazardous Waste	Typical hazardous materials found on the Installation include cleaning supplies, paints, and grounds maintenance materials. The amount of hazardous waste generated on the Installation is less than 100 kilograms per month, which is within the Conditionally Exempt Small Quantity Generator status.
Transportation	Transportation patterns and traffic volumes would not change from existing conditions. Only a small number of worker vehicles and equipment would be required to support the construction projects. Activities associated with this project are considered to be minor with only a small number of contractor personnel required.
Airspace	Jordan Lake AFSSS does not have a flying mission; therefore, airspace would not be affected.
Environmental Restoration Program Sites	There are no Environmental Restoration Program (contaminated) sites on Jordan Lake AFSSS.

Resource	Rationale for Excluding from Evaluation
Farmlands	There are no prime or unique farmlands present on the Installation.
Radon	Based on radon testing done in 1998, results showed a highest reading of 1.7 pCi/L, which is below the USEPA threshold of 4.0 pico-Curies per liter (USAF, 2004).
Polychlorinated Biphenyls (PCB)	Based on the 2010 PCB Management Plan, there is a small possibility that some old equipment may contain PCB oils (USAF, 2010b). This equipment is associated with the Operations Building and would not be impacted as a result of demolition of the hazardous materials storage shed or oil change pit.
Asbestos	A Supplemental Asbestos Survey was conducted in 2005 (USAF, 2005a). Because the hazardous materials storage shed appeared to be constructed of wood and/or metal it was not included in the survey. Since there is no asbestos associated with the hazardous materials storage shed or oil change pit; there would be no impacts from demolition.
Socioeconomics	There would be small beneficial impacts to local employment and income from construction and demolition activities. Construction jobs would most likely be filled by persons living in the area, no increase in population would occur.
Environmental Justice[1] Protection of Children[2]	There will be no disproportionately high and adverse human health or environmental effects on minority populations and low-income populations.

[1] EO 12898, Federal Actions to Address Environmental Justice in Minority and Low-Income Populations
[2] EO 13045, Protection of Children from Environmental Health Risks and Safety Risks

3.1 GEOLOGY, TOPOGRAPHY AND SOILS

Jordan Lake AFSSS is located on a high Pleistocene terrace of the Coosa River. The ancient terrace is comprised of poorly sorted sands, silts, clays, quartz, quartzite and chert gravels. The bedrock of the area is composed of Precambrian and Paleozoic rocks of the Wedowee Group. The Wedowee Group includes the Cragford phyllite, Cutnose gneiss, and other high-grade metamorphic and igneous rocks.

Jordan Lake AFSSS is located in the Central Region of Alabama, which stretches approximately 170 miles from the western border with Mississippi to eastern border with Georgia and 136 miles from the northern border of Cullman County to the Alabama River in southern Autauga County. Elmore County lies within two major land areas, the East Gulf Coastal Plain and the Piedmont Upland. The East Gulf Coastal Plain covers the southern two thirds of the state running north almost to the Tennessee border. This area is composed of varying landscapes but the terrain is primarily hilly near Elmore County and is covered by many pine forests, often called the Central Pine Belt. The Piedmont is located in the eastern central section of Alabama and consists of low hills, ridges and sandy valleys. Coal, iron ore, limestone and marble are found in this area of Alabama along with Cheaha Mountain, Alabama's highest point. The elevation at Jordan Lake is approximately 380 to 400 feet above sea level. The property is relatively flat with grassy, gently sloping landscape.

All soils on the Installation are of the soil component named Orangeburg (USDA, 2008). The minimum depth to bedrock is greater than 60 inches. Table 4 shows the soil characteristics of the Orangeburg soils. Figure 4 shows the soil location on Jordan Lake AFSSS.

TABLE 4. SOIL CHARACTERISTICS

Soil Component	Soil Surface Texture / Slopes	Hydrologic Group	Soil Drainage Class	Hydric Status
Orangeburg	Fine sandy loam, slightly eroded phase. 0 to 5 percent slopes.	Class B: Moderate infiltration rates. Deep and moderately deep, moderately well and well rained soils with moderately coarse textures.	Well drained. Soils have intermediate water holding capacity. Depth to water table is more than 6 feet. From 0 to 12 inches the maximum permeability rate is 2 inches per hour.	Soil does not meet the requirements for a hydric soil.
Source: USDA, 2008				

3.2 AIR QUALITY

The U.S. Environmental Protection Agency (USEPA) established the National Ambient Air Quality Standards (NAAQS) for criteria pollutants, which are those compounds that cause or contribute to air pollution which could endanger public health and the environment. These pollutants may directly or indirectly originate from diverse mobile and stationary sources such as vehicles, maintenance activities, fuel storage tanks, prescribed burns and wildfires and clearing and grading ground surfaces. Air quality is determined by comparing ambient air levels with the upper concentration limits of the NAAQS for each criteria pollutant. Geographic areas that exceed NAAQS are designated as non-attainment for the specific pollutant that is in violation of the standard, whereas areas that meet NAAQS are designated as being in attainment for the criteria pollutant.

On April 30, 2012, the USEPA designated the entire state of Alabama as attainment/unclassifiable with respect to the 2008 ozone (NAAQS). The finding was based on monitoring data the Alabama Department of Environmental Management (ADEM) had collected from 2008 to 2010. In October 2011, ADEM recommended that all counties in Alabama be classified as in attainment with the 2008 NAAQS. Elmore County is also listed as attainment/unclassifiable with respect to carbon monoxide, particulate matter$_{2.5}$ and lead. Designated areas which are listed as attainment ("Better than national standards") or unclassifiable ("Cannot be classified") represent potential baseline areas or portions of baseline areas which are used in determining compliance with maximum allowable increases (increments) in concentrations of the respective pollutants for the prevention of significant deterioration of air quality (ADEM, 2012).

The General Conformity Rule, promulgated by the USEPA at 40 CFR Parts 51 and 93, requires that the federal government may not engage, support or provide financial assistance for permit or license, or approve any activity that fails to conform to the State Implementation Plan (SIP). A General Conformity Evaluation is a review process designed to ensure that federal plans, programs, and projects are consistent

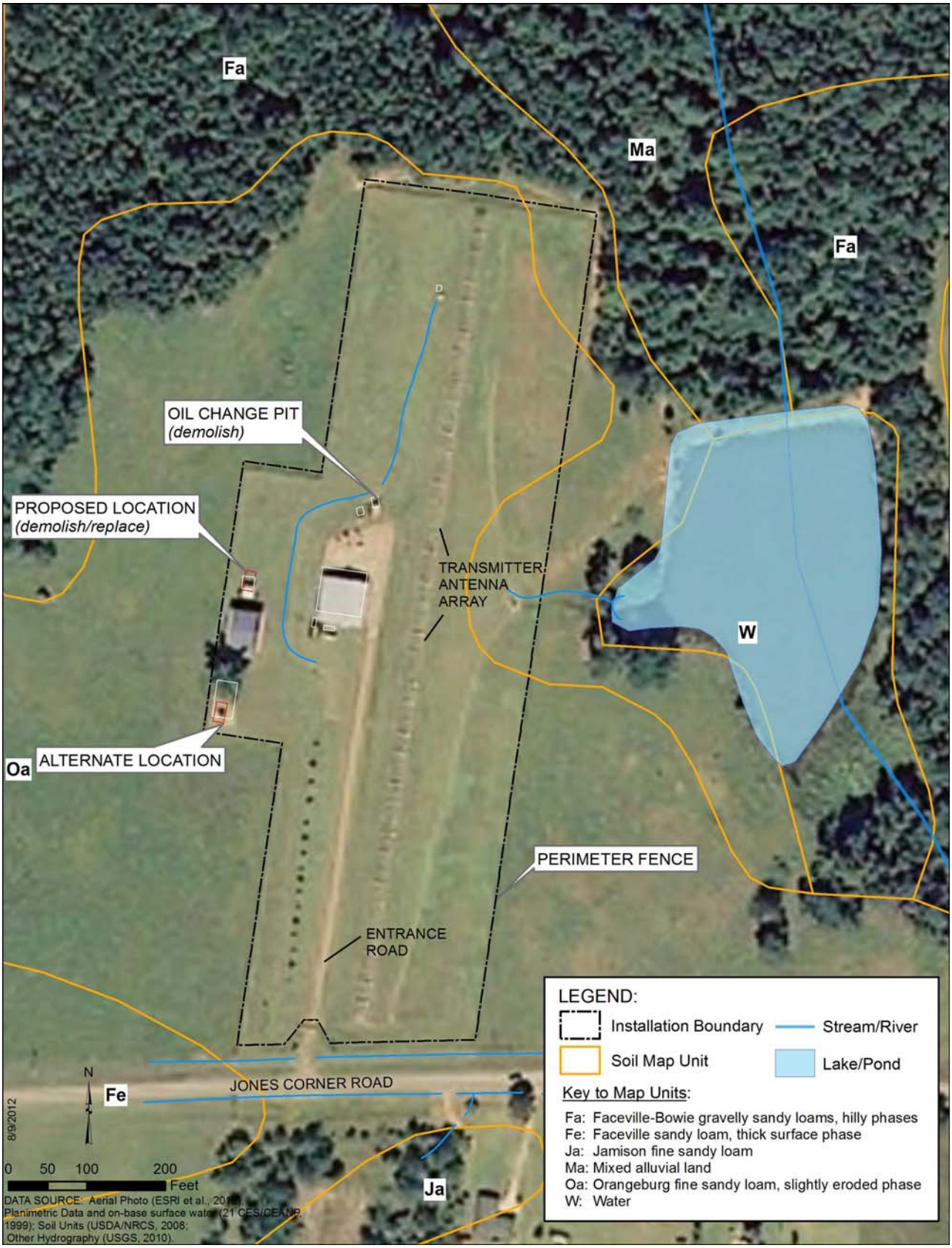

Figure 4. Soil Map of Jordan Lake AFSSS

with the SIP and the local clean air plan, and that they do not contribute to air quality degradation that would adversely affect State efforts to attain or maintain the NAAQS. The General Conformity Rule applies to all federal actions that are taken in nonattainment and maintenance areas. Since the proposed projects are located in an attainment area, a general conformity evaluation is not required.

The primary source of air emissions at Jordan Lake AFSSS is a 275 kilowatt (kW) emergency diesel generator with a 500 gallon, single-walled diesel fuel storage tank and one 20-gallon, single-walled diesel fuel day tank. The generator provides emergency back-up power to maintain the Installation in the event of commercially supplied power interruption. The generator is operated one hour monthly for testing and maintenance. Since the generator operates less than 500 hours per year, it is exempt from requiring an air permit (USAF, 2010a). Other insignificant activities that occur at the Installation include limited soldering, spray-painting and solvent cleaning.

The climate of Alabama is generally subtropical, except in the more mountainous areas, where it is a temperate climate. The heat of summer is tempered in the south by the winds from the Gulf of Mexico, and in the north by the elevation above the sea. At Montgomery, the average annual temperature is 66 °F with a winter average of 49 °F, and a summer average of 81 °F. The average winter minimum for the entire state is 35 °F, and there is an average of 35 days in each year in which the thermometer falls below the freezing-point. The amount of precipitation is greatest along the coast (62 inches) and evenly distributed through the rest of the state (about 52 inches). During each winter there is usually one fall of snow in the south and two in the north. Average wind speed is 15 miles per hour.

3.3 WATER RESOURCES

The project area is located in the southeastern coastal plain aquifer system which consists of porus-media aquifers. Porous-media aquifers typically consist of unconsolidated or poorly consolidated sediments. The porous-media aquifers occur in sand and gravel deposits in the valley floor of the Coosa River and in clastic deposits in the southeastern Coastal Plain. Groundwater flow generally is toward the river, but may be reversed temporarily near the river during periods of high streamflow. Wells completed in these sediments generally yield small quantities of water. The Coosa River flows across the outcrop area of the Cretaceous sediments in northwestern Elmore County. Aquifers in these sediments are of the porous-media type, and the Coosa River receives water discharged from these aquifers (USGS, 2006).

Jordan Lake AFSSS is drained by a small ephemeral drainage, part of the Pinkston Creek watershed, a tributary of the Coosa River. The Installation is in a Class B Hydrologic Group, meaning moderate infiltration rates. No jurisdictional wetlands or other waters of the U.S. have been documented on the Installation. There is a wetland (Palustrine, scrub-shrub, broad-leaved evergreen, saturated) located off the Installation approximately 500 feet to the east of the project area (see Figure 5). Jordan Lake receives its potable water from the Central Elmore Water and Sewer Authority which monitors for the primary and secondary drinking water standards.

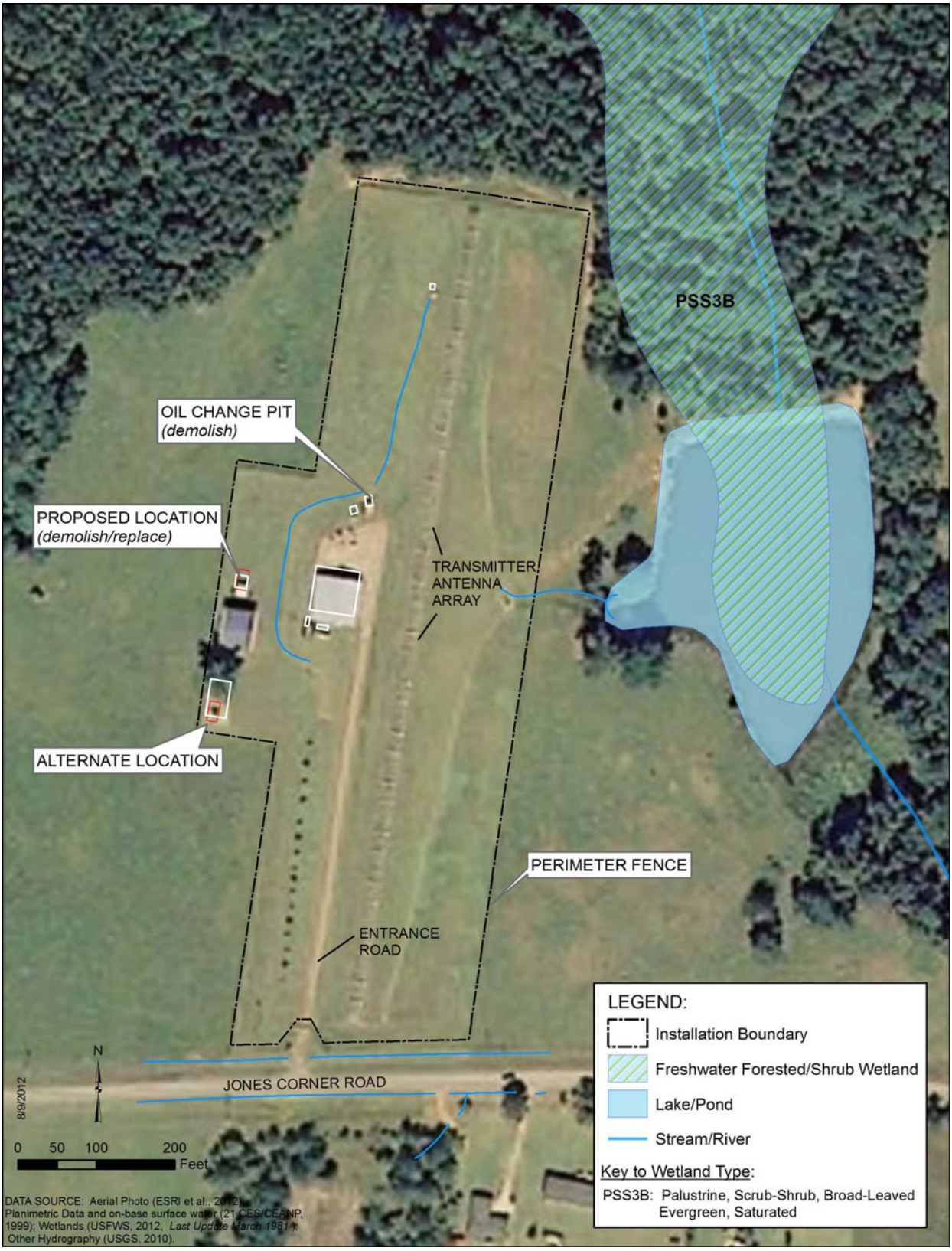

Figure 5. Water Resources Map of Jordan Lake AFSSS

3.4 BIOLOGICAL RESOURCES

The biological resources of interest include the common native and introduced plants and animals, species afforded special protections, and the vegetative communities on and adjacent to the Installation.

3.4.1 Vegetation

About two-thirds of Alabama is covered by forests, largely made up of southern yellow pine, red cedar, and other conifers. The most common deciduous trees are hickory, sweet gum, and several species of oak. Jordan Lake AFSSS is covered with native and non-native grasses. The area around the proposed affected area has been landscaped with non-native grasses, shrubs and trees. Native weeds sprout in areas disturbed by mowing and grading. The vegetation surrounding the Installation is typical of this area. Some of the plant species known to occur on and adjacent to the Installation are in Table 5.

TABLE 5. PLANT SPECIES FOUND AT JORDAN LAKE AFSSS

Scientific Name	Common Name
Andropogon virginicus	broomsedge bluestem
*Asphodelus fistulosus**	onionweed
Axonopus spp.	carpet grass
Cynodon dactylon	Bermuda grass
Cyperus rotundus	Purple nutsedge
Dichanthelium scabriusculum	woolly rosette grass
Dichondra caroliniensis	pony foot
Digitaria ischaemum	smooth crabgrass
Eupatorium capillifolium	dogfennel
Oxalis stricta	Common yellow oxalis
Paspalum dilatatum	dallis grass
Paspalum notatum	bahia grass
*Rosa multiflora**	multiflora rose
Rubus spp.	dewberry
Verbena rigida	verbena
*invasive species Source: USAF, 2007	

3.4.2 Invasive Species and Noxious Weeds

Invasive species can be non-native plants, insects, crustaceans, birds, etc. that are usually destructive, difficult to control or eradicate, and generally cause ecological and economic harm; whereas, a noxious weed is any non-native plant designated by a government agency as injurious to public health, agriculture, recreation, wildlife or property. Invasive plant species and noxious weeds are generally found in disturbed soil conditions.

Field surveys were conducted at Jordan Lake AFSSS in October 2006 for the Invasive Plant Species Control Plan. The installation was surveyed by both linear and meandering transects throughout the facility covering the entire 11 acres. Fifteen plant species were identified, of which one is considered invasive, the multiflora rose. Onionweed may also be present at the installation; however, identification was not possible due to mowing occurring on site (USAF, 2007).

The location of invasive species was limited primarily to the northeast and east portions of the property. The possible onionweed was also located in these areas. The restricted distribution of these species may be a result of the dense stands of grass that cover the majority of the site, which limits bare ground or disturbed soil, making the establishment of new or invasive species difficult.

3.4.3 Wildlife

Wildlife occurrences at the Jordan Lake AFSSS are limited because of the small land area of the installation, the fenced perimeter and the lack of suitable food or cover. Alabama has a varied wildlife population with numerous deer, foxes, bobcats, game birds and other animals. Large numbers of migratory ducks and geese winter in the state.

3.4.4 Protected Species

A protected species is so designated because of federal or state regulations or federal land management agency policies that restrict the use of the species and its habitat. A species is listed under the Endangered Species Act because of danger of its extinction as a consequence of economic growth and development without adequate conservation. A species listed as threatened or endangered under the Act receives federal protection. Most birds are protected by the Migratory Bird Treaty Act (MBTA). The MBTA provides protection of nearly all species of birds from harm by prohibiting the destruction of active nesting habitat.

The US Fish and Wildlife Service (USFWS) lists one flowering plant, the Alabama canebrake pitcher-plant (*Sarracenia rubra ssp. alabamensis*), as endangered in Elmore County (USFWS, 2012a). There is no federal listed threatened or endangered plant or wildlife species, or designated critical habitat known to occur on or in the vicinity of Jordan Lake AFSSS.

3.5 CULTURAL RESOURCES

Cultural resources are the physical remains of past human activity and include prehistoric and historic sites, structures, features, or locations considered important to a culture or a community for scientific, traditional, religious or other reasons. AFI 32-7065, Cultural Resource Management, provides the Air Force with guidance on compliance with the National Historic Preservation Act, and applicable federal, state and local regulations.

Formerly referred to as the Jordan Lake Naval Space Surveillance Field Station, Jordan Lake was built in 1958 under the U.S. Department of the Navy. In 1965, the Jordan Lake Field Station relocated several hundred yards north of the original site. Landscape modifications at the Installation consisted of the construction of a large earthen platform for the support of the long antenna.

A cultural resource survey and assessment was conducted in 2002. Two structures on Jordan Lake AFSSS were found to be historic properties and eligible for listing on the National Register of Historic Places (NRHP) (Navy, 2002). These structures included the Operations Building built in 1965 and the Transmitting Antenna also built in 1965. These buildings are recommended as eligible for the NRHP under National Register Criteria Consideration G, for their exceptional significance associated with the Cold War.

Other outbuildings at the Installation were found to be not historically important and not eligible for the NRHP.

As part of compliance with Section 110 of the National Historic Preservation Act of 1966, an archaeological survey was conducted in 2002. The survey consisted of a pedestrian walk over of the Installation. Approximately a third of the entire facility is covered by an earthen platform 10 to 13 feet high supporting the 315-meter long antenna (US Navy, 2006). The areas east and west of the antenna platform appear to be less disturbed as these areas generally display the contours of the natural landscape, including a small natural drainage that crosses the facility. According to facility personnel, Native American campsites and mound sites are common in the vicinity, although no artifacts had been observed by them or by the archaeologist during his walk over. The Alabama State Historic Preservation Office (SHPO) determined that there is possibility for undisturbed archaeological resources on the Installation and recommended a Phase I archaeological survey (US Navy, 2006).

3.6 LEAD-BASED PAINT (LBP)

Lead is a health and environmental hazard that was once used in many materials. One use of lead that causes concern is LBP. LBP can be hazardous when dust or chips are generated from deteriorating paint or during removal (e.g. sanding off old paint). Lead exposure (which can result from ingesting paint dust or chips, or from inhaling lead vapors from torch cutting operations) can affect the human nervous system at low levels. Lead is especially hazardous to children due to their small size and developing nervous system. Air Force policy (USAF, Undated) states that workers subjected to prolonged or repeated exposure to airborne LBP dust are working in a hazardous environment. Any LBP found at Jordan Lake AFSSS in areas subject to demolition is removed by trained and certified abatement personnel, and the resultant waste sampled for hazardous constituents. If the waste is hazardous, it is removed, handled, and disposed of properly. USEPA and Housing and Urban Development do not define a regulated lead concentration in lead-containing components (LCC).

Jordan Lake does have a Lead Management Plan that addresses worker protection requirements and addresses requirements associated with managing and disposing of LBP (USAF, 2010c). A limited LBP survey was performed in 2005 (USAF, 2005b). Two readings were taken on the exterior of the hazardous materials storage shed. These readings registered above 1.0 milligrams per square centimeter and would be considered LBP as defined by the USEPA (USAF, 2005b). These readings were located on the door trim on the east side of the building. These painted surfaces containing levels of lead above1.0 milligrams per square centimeter could create lead dust or lead contaminated soil hazards if the paint is turned into dust by abrasion, scraping or sanding.

Lead-bearing waste may be managed as either a solid waste or a hazardous waste depending upon the results of Toxicity Characteristic Leaching Procedure (TCLP) tests for lead. The TCLP maximum contaminant concentration for lead is 5.0 milligram per liter (5.0 parts per million). Wastes with 5.0 parts per million or greater TCLP exhibit the toxicity characteristic for lead and require management as a hazardous waste.

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4.0 ENVIRONMENTAL CONSEQUENCES

This Section discusses the potential for significant impacts to the human environment as a result of implementing the Proposed Actions or the No Action Alternative. As defined in 40 CFR 1508.14, the human environment is interpreted to include natural and physical resources, and the relationship of people with those resources. Accordingly, this analysis has focused on identifying types of impacts and analyzing their potential significance. This Section discusses the effects that the Proposed Actions or the No Action Alternative could generate in the environmental resource areas described in Section 3.

The concept of significance used in this assessment includes consideration of both the context and the intensity or severity of the impact, as defined by 40 CFR 1508.27. Severity of an impact could be based on the magnitude of change, the likelihood of change, the potential for violation of laws or regulations, the context of the impact (both spatial and temporal), and the resilience of the resource. Significant impacts are effects that are most substantial and should receive the greatest attention in decision making. Impacts that are not significant result in little or no effect to the existing environment and cannot be easily detected. If a resource would not be affected by a proposed activity, a finding of no impact is noted. If a resource would be measurable improved by a proposed activity, a beneficial impact was noted. Best management practices are included as necessary to minimize potential adverse consequences of the federal action. No significant impacts were identified; therefore, no mitigation measures are listed or required.

This Section is organized by resource element in the same order as introduced in Section 3. The Section concludes with a discussion of Cumulative Impacts, Irreversible and Irretrievable Commitment of Resources, and Short-Term Use and Long-Term Productivity.

4.1 GEOLOGY, TOPOGRAPHY AND SOILS

The geological resources within the proposed project area were studied to determine the potential impacts from implementing the Proposed Actions and No Action Alternative. Geological studies, the soil survey for the Elmore County Area, and topographic contours were reviewed to characterize the existing environment. Construction activities that could influence resources were evaluated to predict the type and magnitude of impacts.

4.1.1 Potential Site-Specific Project Impacts

The projects are evaluated for project specific impacts in the following subsections.

4.1.1.1 Potential Impacts of Constructing Antenna Parts Storage Facility

4.1.1.1.1 Proposed Action

Implementing the Proposed Actions would not impact the geology or topography of the Installation but would have minor impacts on soils. The proposed construction activities would disturb an area of less than one acre. The storage facility would be located in the same area disturbed for demolition of the hazardous materials storage shed. The soils in the project areas have been previously disturbed. All affected areas would be regraded after construction/demolition. This action would not significantly affect the to-

pography or drainage in the area. Only temporary and not significant effect on soils would occur from excavation, use of fill material and compaction.

The Orangeburg soil is considered somewhat limited for shallow excavations. Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected (USDA, 2008). Surface runoff on Orangeburg soils is slow to medium.

Best management practices, such as revegetating areas of exposed soil with natural vegetation or grasses after construction would minimize soil erosion. Other practices include limiting grading and ground disturbing activities to the frequency and the areas necessary to complete the proposed activities. Daily watering, stabilization, and maintaining existing vegetation and/or revegetating sites by planting low-growing native ground cover would reduce wind and water erosion in the disturbed area. Grading and construction activity should be curtailed during strong wind conditions to minimize soil erosion from wind.

4.1.1.1.2 Alternate Location

There is an existing concrete pad at this location; therefore, there would be no impacts to geology or topography and minimal impacts to soils surrounding the pad from compaction by equipment. Impacts from constructing the facility at this location would have insignificant impacts to soils.

4.1.1.1.3 No Action Alternative

The proposed new storage facility would not be built and no demolition would occur; therefore, soil resources would not be impacted.

4.1.2.1 Potential Impacts of Demolishing the Hazardous Materials Storage Shed and Oil Change Pit

4.1.2.1.1 Proposed Action

Demolishing the hazardous materials storage shed and oil change pit would not impact the geology or topography of the Installation but would have minor impacts on soils. The proposed demolition activities would disturb an area of less than one acre. The soils in the project areas have been previously disturbed. All affected areas would be regraded after demolition. This action would not significantly affect the topography or drainage in the area. Only temporary and not significant effect on soils would occur from excavation, use of fill material and compaction.

The Orangeburg soil is considered somewhat limited for shallow excavations. Somewhat limited indicates that the soil has features that are moderately favorable for the specified use. The limitations can be overcome or minimized by special planning, design, or installation. Fair performance and moderate maintenance can be expected (USDA, 2008). Surface runoff on Orangeburg soils is slow to medium.

Best management practices, such as revegetating areas of exposed soil with natural vegetation or grasses after demolition would minimize soil erosion. Other practices include limiting grading and ground disturbing activities to the frequency and the areas necessary to complete the proposed activities. Daily watering, stabilization, and maintaining existing vegetation and/or revegetating sites by planting low-

growing native ground cover would reduce wind and water erosion in the disturbed area. Grading and demolition activity should be curtailed during strong wind conditions to minimize soil erosion from wind.

4.1.2.1.2 No Action Alternative

The hazardous materials storage shed and the oil change pit would not be demolished; therefore, geology, topography and soil resources would not be impacted.

4.2 AIR QUALITY

Impacts to air quality are based on federal, state and local pollution regulations or standards. The analysis was based on a review of existing air quality in the region, information of Jordan Lake AFSSS air emission sources, and projections of emissions from proposed construction and demolition activities.

4.2.1 Potential Site-Specific Project Impacts

The projects are evaluated for project specific impacts in the following subsections.

4.2.1.1 Potential Impacts of Constructing Antenna Parts Storage Facility

4.2.1.1.1 Proposed Action

Construction activities for the antenna parts storage facility would generate emissions of criteria pollutants from grading and excavating, operation of construction equipment, trucks driving on paved and unpaved roads and worker vehicles. Each type of equipment would be used very briefly and would consequently generate a very small amount of emissions. The impacts on air quality due to construction are expected to be localized and very short-term. Therefore, the minimal emissions of criteria pollutants from construction activities would have a negligible impact on air quality. The proposed facility would be connected to public utilities and would not have any stationary air emissions sources or require a permit to operate.

Because of the small quantity of potential emissions generated during construction and the generally dispersive meteorological conditions (an average of 15 miles per hour winds) the activities would not exceed or contribute to an exceedance of air quality standards. This action is exempt from further conformity analysis pursuant to 40 CFR 93 subpart B 93.153.

During construction, air quality impacts could occur from dust carried offsite and combustive emissions from construction equipment. The primary risks from blowing dust particles relate to human health and human nuisance values. Fugitive dust can contribute to respiratory health problems and create an inhospitable working environment. Deposition on surfaces can be a nuisance to those living or working downwind of the construction site. Measures that would be implemented to reduce or eliminate fugitive dust emissions would include:

- *Watering/Irrigation*. Watering the ground surface until it is moist is an effective dust control method for haul roads and other traffic routes. This practice can be applied to almost any site. When suppression methods involving water are used, care would be exercised to minimize over-

watering that could cause the transport of mud onto adjoining roadways, ultimately increasing the dust problem.

- *Vegetative Cover*. In areas not expected to handle vehicle traffic, vegetative stabilization of disturbed soil is often desirable. Vegetation provides coverage to surface soils and decreases wind velocity at the ground surface, thus reducing the potential for dust to become airborne.
- *Mulch*. Mulching can be a quick and effective means of dust control for recently disturbed areas.

The Proposed Action would have short-term, insignificant impacts on air quality generated by construction activities. There would be no long-term impacts from operation of the antenna parts storage facility.

4.2.1.1.2 Alternate Location

Impacts from this Alternative would be the same as those from the Proposed Action.

4.2.1.1.3 No Action Alternative

There would be no change in air resources if the antenna parts storage facility is not constructed.

4.2.1.2. Potential Impacts of Demolishing the Hazardous Materials Storage Shed and Oil Change Pit

4.2.1.2.1 Proposed Action

Demolition activities would generate emissions of criteria pollutants from grading and excavating, operation of construction equipment, trucks driving on paved and unpaved roads and worker vehicles. Each type of equipment would be used very briefly and would consequently generate a very small amount of emissions. The impacts on air quality due to demolition are expected to be localized and very short-term. Therefore, the minimal emissions of criteria pollutants from demolition activities would have a negligible impact on air quality. Because of the small quantity of potential emissions generated during demolition activities and the generally dispersive meteorological conditions (an average of 15 miles per hour winds) the activities would not exceed or contribute to an exceedance of air quality standards. This action is exempt from further conformity analysis pursuant to 40 CFR 93 subpart B 93.153.

During demolition, air quality impacts could occur from dust carried offsite and combustive emissions from construction equipment. The primary risks from blowing dust particles relate to human health and human nuisance values. Fugitive dust can contribute to respiratory health problems and create an inhospitable working environment. Deposition on surfaces can be a nuisance to those living or working downwind of the construction site. Measures that would be implemented to reduce or eliminate fugitive dust emissions would include:

- *Watering/Irrigation*. Watering the ground surface until it is moist is an effective dust control method for haul roads and other traffic routes. This practice can be applied to almost any site. When suppression methods involving water are used, care would be exercised to minimize overwatering that could cause the transport of mud onto adjoining roadways, ultimately increasing the dust problem.

- *Vegetative Cover*. In areas not expected to handle vehicle traffic, vegetative stabilization of disturbed soil is often desirable. Vegetation provides coverage to surface soils and decreases wind velocity at the ground surface, thus reducing the potential for dust to become airborne.
- *Mulch*. Mulching can be a quick and effective means of dust control for recently disturbed areas.

The Proposed Action would have short-term, but not significant, impacts on air quality generated by demolition activities.

4.2.1.2.3 No Action Alternative

There would be no change in air resources if the demolition does not occur.

4.3 WATER RESOURCES

The analysis focused on the proximity of the construction and demolition activities in relation to surface waters, hydrogeology at the sites and water quality in the local area. Maps showing topography, watersheds, and drainage were reviewed.

4.3.1 Potential Site-Specific Project Impacts

The projects are evaluated for project specific impacts in the following subsections.

4.3.1.1 Potential Impacts of Constructing Antenna Parts Storage Facility

4.3.1.1.1 Proposed Action

Direct impacts to water resources would result primarily from disturbing the ground during construction and activities and from altering surface hydrology. Excavation (about two to four feet) would be required for the foundation for the new storage facility. Less than an acre would be disturbed for construction of the storage facility; therefore, a storm water discharge permit would not be required. Storm water runoff would be localized and would not impact storm water drainage in the area. Impacts from storm water runoff would not be significant.

Minor impacts to surface waters from sedimentation originating from construction sites may occur. Due to the abundant rainfall in the region, disturbed soil in construction areas and stockpiles of dirt are susceptible to erosion during the construction process. Proper construction management such as the use of runoff and sediment traps (i.e., bales and silt fences) should minimize the potential for adverse impacts to surface waters from runoff. Replacement of ground cover as soon as possible would reduce erosion. The wetland area located to the east of the Installation would not be impacted from construction activities.

A minimal amount of water would be used during construction for concrete, equipment washing and other construction-related purposes. The storage facility would not result in a change in personnel authorizations nor an increased need for water. There would be no impact on water demand. There would be no impacts to water quality and long-term water use would remain at existing levels.

4.3.1.1.2 Alternate Location

Impacts from this Alternative would be the same as those under the Proposed Action.

4.3.1.1.3 No Action Alternative

Current operations at the Installation and activities to manage the water resources would continue and no impact to the water resources on or adjacent to the Installation would occur.

4.3.1.2 Potential Impacts of Demolishing the Hazardous Materials Storage Shed and Oil Change Pit

4.3.1.2.1 Proposed Action

Direct impacts to water resources would result primarily from disturbing the ground during demolition activities and from altering surface hydrology. Excavation (about two to four feet) would be required for demolition of storage shed and oil change pit. Less than an acre would be disturbed for demolition of the storage shed oil change pit. A storm water discharge permit would not be required since the demolition would not exceed one acre. Storm water runoff would be localized and would not impact storm water drainage in the area. Impacts from storm water runoff would not be significant.

Minor impacts to surface waters from sedimentation originating from demolition sites may occur. Due to the abundant rainfall in the region, disturbed soil in demolition areas and stockpiles of dirt are susceptible to erosion during the demolition process. Proper construction management such as the use of runoff and sediment traps (i.e., bales and silt fences) should minimize the potential for adverse impacts to surface waters from runoff. Replacement of ground cover as soon as possible would reduce erosion. The wetland area located to the east of the Installation would not be impacted from demolition activities.

A minimal amount of water would be used during demolition for equipment washing and other demolition-related purposes. There would be no impact on water demand. There would be no impacts to water quality and long-term water use would remain at existing levels.

4.3.1.2.2 No Action Alternative

Current operations at the Installation and activities to manage the water resources would continue and no impact to the water resources on or adjacent to the Installation would occur.

4.4 BIOLOGICAL RESOURCES

The analysis focused on the proposed construction and demolition locations relative to various habitats on Jordan Lake AFSSS.

4.4.1 Potential Site-Specific Project Impacts

The projects are evaluated for project specific impacts in the following subsections.

4.4.1.1 Potential Impacts of Constructing Antenna Parts Storage Facility

4.4.1.1.1 Proposed Action

The loss of minimal vegetation and temporary displacement of wildlife during construction activities would be an unavoidable impact, but not significant. Less than one acre of land would be cleared and graded for construction of the storage facility. The project area is located on semi-improved lands and are not considered critical habitat. Short-term impacts to vegetative resources during construction activities would not be significant.

The amount of vegetation disturbed by construction for the storage facility would be kept to the minimum amount required to complete the activities. Disturbed areas could be re-established with grasses identified for survivability in the local area. Additional measures proposed to minimize adverse effects could include using straw bales, silt fences, silt traps, and covering stockpiles during grading activities to contain waterborne erosion and reduce or prevent it from reaching storm sewers and ditches. After construction is complete and the area is revegetated, no long-term impacts to vegetation would occur.

To prevent invasive species during construction activities, the Invasive Plant Species Control Plan provides the following recommendations (USAF, 2007):

- Require contractors to clean equipment and vehicles with high pressure air or water prior to use in the area. Cleaning should concentrate on the undercarriage, axles, frames, cross members, on and under steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs should be swept and refuse disposed of in waste receptacles. Care should be taken that wash water be retained on site to prevent weed material transport.
- Use certified invasive weed-free imported materials (e.g., straw bales, fill material, erosion control seed) when and where needed during construction, reclamation, maintenance, and operations.
- Reseed disturbed sites with competitive and native species. In areas where applicable grasses are recommended, use species that will be tolerant of broadleaf herbicides, which can later be used to spot treat any broadleaf weeds.
- After an area is seeded, establish a maintenance schedule to continue to water and fertilize seeded areas to promote establishment. The maintenance activities should continue through a minimum of one growing season; however, it is preferable to complete the monitoring through two growing seasons.

4.4.1.1.2 Alternate Location

Impacts from constructing the storage facility at this location would be the same as those from the Proposed Action.

4.4.1.1.3 No Action Alternative

Since habitat value of the Installation is very low, continued impacts to any wildlife would be negligible. Invasive species control would continue as described in the Invasive Species Control Plan (USAF, 2007).

4.4.1.2 Potential Impacts of Demolishing the Hazardous Materials Storage Shed and Oil Change Pit

4.4.1.2.1 Proposed Action

The loss of minimal vegetation and temporary displacement of wildlife during demolition activities would be an unavoidable impact, but not significant. Less than one acre of land would be disturbed for demolition of the storage shed and oil change pit. The project area is located on semi-improved lands and are not considered critical habitat. Short-term impacts to vegetative resources during demolition activities would not be significant.

The amount of vegetation disturbed by demolition activities would be kept to the minimum amount required to complete the activities. Disturbed areas could be re-established with grasses identified for survivability in the local area. Additional measures proposed to minimize adverse effects could include using

straw bales, silt fences, silt traps, and covering stockpiles during grading activities to contain waterborne erosion and reduce or prevent it from reaching storm sewers and ditches. After demolition is complete and the area is revegetated, no long-term impacts to vegetation would occur.

To prevent invasive species during demolition activities, the Invasive Plant Species Control Plan provides the following recommendations (USAF, 2007):

- Require contractors to clean equipment and vehicles with high pressure air or water prior to use in the area. Cleaning should concentrate on the undercarriage, axles, frames, cross members, on and under steps, running boards, and front bumper/brush guard assemblies. Vehicle cabs should be swept and refuse disposed of in waste receptacles. Care should be taken that wash water be retained on site to prevent weed material transport.
- Use certified invasive weed-free imported materials (e.g., straw bales, fill material, erosion control seed) when and where needed during construction, reclamation, maintenance, and operations.
- Reseed disturbed sites with competitive and native species. In areas where applicable grasses are recommended, use species that will be tolerant of broadleaf herbicides, which can later be used to spot treat any broadleaf weeds.
- After an area is seeded, establish a maintenance schedule to continue to water and fertilize seeded areas to promote establishment. The maintenance activities should continue through a minimum of one growing season; however, it is preferable to complete the monitoring through two growing seasons.

4.4.1.2.2 No Action Alternative

Since habitat value of the Installation is very low, continued impacts to any wildlife would be negligible. Invasive species control would continue as described in the Invasive Species Control Plan (USAF, 2007).

4.5 CULTURAL RESOURCES

The analysis focused on the proposed location for the construction and demolition in relation to any historic buildings or archaeological resources. The archaeological survey and cultural resource inventory were reviewed.

4.5.1 Potential Site-Specific Project Impacts

The projects are evaluated for project specific impacts in the following subsections.

4.5.1.1 Potential Impacts of Constructing Antenna Parts Storage Facility

4.5.1.1.1 Proposed Action

No known cultural resources have been identified in the area for the proposed construction activities. No archaeological artifacts of any significance were located during a survey for cultural resources and considering the high level of ground disturbance that has occurred on the Installation, no other potential impacts are likely. Properties found potentially eligible for the NRHP would not be disturbed as part of this Action.

Should any unknown archaeological resources be uncovered during construction activities, the Installation would follow procedures described in AFI-32-7065, Cultural Resource Management, and consult with the Alabama SHPO.

4.5.1.1.2 Alternate Location

Impacts from construction at this location would be the same as those under the Proposed Action.

4.5.1.1.3 No Action Alternative

For the No Action Alternative, current conditions would not change and impacts to cultural resources would occur.

4.5.1.2 Potential Impacts of Demolishing the Hazardous Materials Storage Shed and Oil Change Pit

4.5.1.2.1 Proposed Action

No known cultural resources have been identified in the area for the proposed demolition activities. No archaeological artifacts of any significance were located during a survey for cultural resources and considering the high level of ground disturbance that has occurred on the Installation, no other potential impacts are likely. Properties found potentially eligible for the NRHP would not be disturbed as part of this Action.

Should any unknown archaeological resources be uncovered during demolition activities, the Installation would follow procedures described in AFI-32-7065, Cultural Resource Management, and consult with the Alabama SHPO.

4.5.1.2.2 No Action Alternative

For the No Action Alternative, current conditions would not change and impacts to cultural resources would occur.

4.6 LEAD-BASED PAINT

The analysis focused on issues relating to removal and disposal of LBP. These included a review of Federal and state laws and regulations and a LBP survey.

4.6.1 Potential Site-Specific Project Impacts

The projects are evaluated for project specific impacts in the following subsections.

4.6.1.1 Potential Impacts of Constructing Antenna Parts Storage Facility

4.6.1.1.1 Proposed Action

There would be no impacts from LBP from construction of the storage facility.

4.6.1.1.2 Alternate Location

There would be no impacts from LBP from construction of the storage facility at this location.

4.6.1.1.3 No Action Alternative

There would be no impacts from LBP from the No Action Alternative.

4.6.1.2 Potential Impacts of Demolishing the Hazardous Materials Storage Shed and Oil Change Pit

4.6.1.2.1 Proposed Action

LBP abatement would be required for the door on the hazardous materials storage shed. Environmental regulations promulgated by RCRA require that demolition debris or debris generated from LBP abatement activities be characterized to determine proper disposal criteria. Alabama also has its own requirements for the control and disposal of lead contaminated waste. The Installation Manager has the responsibility to coordinate LBP activities with the appropriate agencies and ensure that LBP demolition debris is disposed of properly. The removal and disposal of any LBP in the hazardous materials storage shed would be performed by trained contractor personnel in accordance with all applicable Federal, state, local and Air Force regulations. The quantity of waste and the short duration of the removal process would not result in a significant impact.

The Occupational Safety and Health Administration's (OSHA) regulation 29 CFR 1926.62 applies to construction work where an employee may be occupationally exposed to lead. OSHA does not recognize lead levels in paint, but focuses on lead levels in the ambient air during demolition. Therefore, OSHA applies during demolition activities that impact lead-containing paint as well as LBP. Paint chip samples should be collected and analyzed to provide information regarding lead-containing paint. The use of personal protective equipment during the demolition and removal of materials that are coated with LBP are generally used to meet the OSHA standard.

4.6.1.2.2 No Action Alternative

Under the No Action alternative, the hazardous materials storage shed would not be demolished and LBP would be left in place and would continue to be monitored for deterioration. If deterioration is noticed, steps to remediate the situation would be taken.

4.7 CUMULATIVE IMPACTS

This section describes the impacts to the environment that may potentially occur because of the additive (i.e., cumulative) effects of implementing the Proposed Action with other past, present, and reasonably foreseeable future actions. Cumulative impacts can result from individually minor but collectively significant actions taking place over a period of time.

Past and present actions on the Installation center on the mission – maintaining the Installation to keep the antenna array operational and personnel safe. Jordan Lake AFSSS is an active military Installation and is subject to regular maintenance and improvement of facilities to maintain mission readiness. With the exception of renovation of the Operations Building, no major changes to the mission or new facility construction or demolition other than the Proposed Actions are planned for the Installation.

Cumulative impacts associated with the Proposed Actions include the use of construction-related vehicles and their short-term impacts on air quality. The short-term increases in air emissions and the minimal impacts predicted for other resource areas would not be significant when considered cumulatively with other

previous, ongoing, or reasonably foreseeable activities. No other known construction is planned for the Installation or adjacent areas.

4.8 IRREVERSIBLE AND IRRETRIEVABLE COMMITMENT OF RESOURCES

The irreversible and irretrievable commitment of resources would most likely involve the commitment of concrete, energy, fuel, labor, and fencing and building materials. The irretrievable resources to be committed are typical for the scale of the proposed projects. Implementation of best construction management practices, standard equipment maintenance schedules, and use of energy conservation and recycling measures during the construction and demolition would minimize the use of irretrievable resources. None of these materials are considered rare and the long-term commitment of these resources would not have a substantial effect on their future availability.

4.9 SHORT-TERM USE AND LONG-TERM PRODUCTIVITY

The definitions of short-term and long-term are based on the scope of the Proposed Actions. Short-term use of the environment, as it relates to the Proposed Actions would encompass the construction and demolition period. Long-term productivity would occur after the construction and demolition has ended. During construction soil would be excavated and there would be associated dust emissions. Excavation and construction would not have a significant effect and impacts would be minimized through best management practices. The antenna parts storage facility would have a long useful life and therefore, high long-term productivity.

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Appendix A –Notice of Availability

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NOTICE OF AVAILABILITY
DRAFT FINAL ENVIRONMENTAL ASSESSMENT (EA)
AND FINDING OF NO SIGNIFICANT IMPACT (FONSI)

CONSTRUCTION OF ANTENNA PARTS STORAGE FACILITY AND DEMOLITION OF A SHED AND OIL CHANGE PIT
JORDAN LAKE AIR FORCE SPACE SURVEILLANCE STATION, ALABAMA

An EA has been prepared in accordance with the National Environmental Policy Act (NEPA) of 1969 and the Council on Environmental Quality implementing NEPA to analyze the potential environmental consequences of constructing a new antenna parts storage facility and demolishing the hazardous materials storage shed and oil change pit at Jordan Lake AFSSS. The EA analyzes potential impacts from geology, topography and soils; air quality; water resources; biological resources; cultural resources; and lead-based paint. The Draft Final EA and FONSI, dated August 2012 are available for review on line at ftp://ftp.pbainc.com/public and at the following library:

Wetumpka Library
212 South Main Street

Public comments on the Draft Final EA will be accepted through September 26, 2012. Written comments and inquiries on the EA and FONSI should be directed to Ms. Melissa Trenchik, 21 CES / CEANP, 580 Goodfellow Street, Peterson AFB, Colorado 80914 or email: melissa.trenchik@peterson.af.mil